

**WHAT IS CLAIMED IS:**

- 1           1.     A bar coding method, comprising:  
2           generating a corroborative signed message from information to be encoded;  
3     and  
4           modulating a base image with a graphical encoding of the signed message to  
5     produce a marked image.
- 1           2.     The method of claim 1, wherein generating the signed message  
2     comprises producing a cryptographic hash from the information to be encoded.
- 1           3.     The method of claim 2, wherein generating the signed message  
2     comprises encrypting the cryptographic hash to produce a digital signature.
- 1           4.     The method of claim 3, wherein the cryptographic hash is encrypted  
2     with a private key.
- 1           5.     The method of claim 3, wherein generating the signed message  
2     comprises concatenating the information to be encoded and the digital signature.
- 1           6.     The method of claim 1, wherein the signed message includes a public  
2     key certificate.
- 1           7.     The method of claim 1, wherein the base image includes an image of a  
2     handwritten signature.
- 1           8.     The method of claim 7, wherein modulating the base image comprises  
2     vectorizing the handwritten signature image.
- 1           9.     The method of claim 8, further comprising obtaining a set of base  
2     control points for the vectorized handwritten signature image, and encoding the  
3     information by displacing the base control points to obtain a marked set of control  
4     points from which the marked image is produced.
- 1           10.    The method of claim 1, further comprising extracting the signed  
2     message from the marked image.

1           11.    The method of claim 10, wherein the signed message is extracted from  
2 the marked image based upon a comparison of the marked image and the base  
3 image.

1           12.    The method of claim 10, further comprising decoding the extracted  
2 signed message to produce a decoded message.

1           13.    The method of claim 12, further comprising extracting from the  
2 decoded message an encrypted original cryptographic hash and the encoded  
3 information.

1           14.    The method of claim 13, further comprising decrypting the encrypted  
2 original cryptographic hash with a public key.

1           15.    The method of claim 14, further comprising authenticating the  
2 extracted information by producing a new cryptographic hash from the extracted  
3 information, and comparing the new cryptographic hash with the original  
4 cryptographic hash.

1           16.    A bar coding system, comprising an encoder configured to:  
2 generate a corroborative signed message from information to be encoded; and  
3 modulate a base image with a graphical encoding of the signed message to  
4 produce a marked image.

1           17.    A bar coding method, comprising:  
2 extracting a signed message from a marked image based upon a comparison  
3 of the marked image and a base image;  
4 decoding the extracted signed message to produce a decoded message; and  
5 extracting from the decoded message information encoded in the marked  
6 image.

1           18.    The method of claim 17, further comprising:  
2 extracting an encrypted original cryptographic hash from the decrypted  
3 message;

